

FLORIDA HOUSE OF REPRESENTATIVES

ENVIRONMENTAL REGULATION COMMITTEE INTERIM PROJECT 2005-2006



MOORED VESSELS IN THE PATH OF A STORM

**Environmental Regulation Committee
1102 The Capitol**

October 2005

Overview

Hurricanes can cause catastrophic damage to marinas and vessels due to the intensity of such a storm event. In spite of the best efforts by the vessel owners and marina owners to prevent material damage to dock structures or vessels, it is an impossible task to anticipate every contingency of a major storm event. Changes in wind direction and fluctuations in wind intensity, excessive rain and storm surge wreck havoc with moored vessels and stationary docks, and often culminate in extensive damage assessments which may evolve into a dispute between the vessel owner and the marina owner. The dispute often hinges on whether the vessel caused damage to the dock, or whether the dock caused damage to the vessel during the storm.

Florida presently has statutory language which prohibits marina owners from requiring vessel owners to remove their vessel from the marina once a *hurricane watch* or *hurricane warning* has been issued.¹ The purpose of this study is to examine how other states deal with this situation and determine if there is any common ground among the marina owners and the vessel owners to balance the aforementioned property and life concerns.

Methodology

Staff worked with representatives from the marina industry and vessel owner community regarding their respective positions. Also, staff reviewed statutes and marine industry articles which focused on hurricane preparedness, and conducted telephone interviews with officials from other states.

Introduction

Florida is a unique state due to the frequency and severity of tropical storms. According to a NOAA report, between 1851 and 2004 there were 273 Category 1-5 hurricanes in the United States from Texas to Maine. Florida was impacted by 40 percent or (110) of these hurricanes. Of the Category 3-5 hurricanes, Florida was hit by (35) 38 percent of the 92 storms in this category.² In addition to the potential damage to commercial buildings and home sites that line Florida's shores, there are approximately 1 million vessels currently registered and moored in the state's waterways. A significant number of these registrants are absentee vessel owners. This combination of factors contributes to Florida's unique interaction with the countless effects from storms.³

Currently, there are nearly 2,000 marinas operating in Florida with hundreds of thousands of boaters navigating Florida's waterways. According to the Florida Department of Environmental Protection, boating is a

\$14.2 billion dollar industry that includes marinas, boatyards, and boaters.⁴

Hurricanes can be devastating to the marine industry. It is possible for marina operations to be brought to a halt, vessels damaged beyond repair, and public access to the water restricted if impacted by a major storm. Replacement and repair costs associated with such a storm event may or may not be covered by insurance. In the event that costs are not covered by insurance, the marina owner and vessel owner are left solely with the expense, which can be financially detrimental to some owners.

Florida law emphasizes the protection of life over property by prohibiting marinas from requiring vessel owners to remove their vessels from a marina once a hurricane watch or warning has been issued.⁵ A *hurricane watch* is posted when hurricane conditions are possible within 36 hours and a *hurricane warning* is posted when hurricane conditions are expected within 24 hours.

A recurring problem arises when a major storm passes over a marina raising the distinct possibility of damage to the docks to which the vessels are tied and damage to the vessels themselves. Marina owners have previously sought changes in Florida law in order to grant them authority to remove vessels before the onslaught of a major storm. Vessel owners have fought that authorization, citing the value of human life over property, and the lack of safe havens to place the vessels.

Hurricane Overview

Few things in nature can compare to the destructive force of a hurricane, which is capable of annihilating coastal areas with sustained winds of 155 mph or higher and areas of intense rainfall and a storm surge. During its life cycle, a major hurricane has been estimated to expend as much energy as 10,000 nuclear bombs.⁶

A hurricane is a violent tropical cyclone, with winds of 74 mph or more, which spiral counterclockwise around a relatively calm center known as the "eye" of the storm. Hurricanes are ranked on an intensity scale of 1 to 5. At full strength, hurricane winds can gust to more than 200 mph as far out as 20 to 30 miles from the eye. Winds of 39 mph and greater can extend 200 miles or more in advance of the hurricane. Hurricane season is June through November of each year. Damage from a hurricane can occur as a result of any or all four elements produced by a hurricane: tidal surge, wind, wave action, and rain, which can be detrimental to a marina, vessel, and human life.

¹ section 327.59, F.S.

² See Table A, NOAA Data

³ September 15, 2005 BoatU.S. response memo

⁴ HB 1121 CS, Staff Analysis 2005

⁵ section 327.59, F.S.

⁶ <http://earthobservatory.nasa.gov/Library/Hurricanes/>

Wind: Dangerous winds are common with hurricanes. Flying debris is one of the greatest threats caused by hurricane wind. The wind force from a hurricane may throw vessels into obstructions (i.e. marinas, other vessels, dock pilings, etc.) or propel objects into them. Wind may also suspend utilities, fresh water supplies and transportation. Tornadoes are also possible as a spin-off from the hurricane winds.

Storm Surge: A significant danger to marinas and vessels is storm surge. Storm surge is a rise in tide caused by the hurricane as it approaches the coast. Hurricane conditions can also cause a negative tide, forcing the water level to go far below normal. Vessels and dock structures can easily be swept away from the sheer force of a significant storm surge.

Wave Action: Wave action is another damaging effect on vessels and marinas. Factors that determine the amount of wave action include the speed of the wind, the depth of the water and the amount of open water. A vessel may come loose by the wave action and batter surrounding vessels and marina structures.

Rainfall: Rainfall varies with the hurricane size, forward speed and other factors. More than 23 inches of rainfall in 24 hours has been recorded in association with some hurricanes. Possible hazards from excessive rainfall might inhibit access to and from vessel refuge locations, cause vessel flooding, enhance currents, and increase volumes in canals and rivers.⁷

In the past decade, the southeastern United States and the Caribbean basin have been pummeled by the most active hurricane cycle on record. This year (2005) marked the first time on record that the Atlantic spawned four named storms by early July, as well as the earliest category 4 storm on record. Forecasters expect the stormy trend to continue for another 20 years or more.⁸

Until Hurricane Katrina (August 29, 2005) the 2004 Florida hurricane season was the second largest insurance event in U.S. history behind only the 9/11 terrorists attacks. The 9/11 tragedy produced approximately \$32 billion in insured losses.⁹ It is estimated that the Hurricane Katrina storm recovery cost is between \$40 to \$60 billion in insured damages. On October 24, 2005, Hurricane Wilma swept across Florida as the eighth hurricane to cross Florida in the past 15 months, causing storm recovery damage forecasts upwards to nearly \$10 billion.¹⁰

In 2004, Hurricanes Charley, Frances, Ivan, and Jeanne were among the top eight most expensive hurricanes in U.S. history, with projected insured losses of \$22.5 billion coming from more than 2 million claims.¹¹ According to a Marine Industries of Florida survey of their members, the 2004 hurricane season resulted in damage to 78 marinas, 52 of which provided damage estimates totaling \$39,698,105, for an average of \$763,425 in damages to each marina facility.¹² Since the 2004 hurricane season, the marine community appears to recognize the need for better plans for handling hurricanes – both before and after they hit.¹³

Florida Law

In 1992, the Legislature passed a comprehensive bill which the governor signed into law to address emergency preparedness problems that surfaced before and after Hurricane Andrew. An issue leading to the enactment of section 327.59, F.S., was whether vessels damage marina docks during a storm or whether the docks damage vessels, should the docking system fail.

Marina owners wanted legislation that would give them the right to evacuate marinas prior to a storm, but vessel owners objected. As a result, section 327.59, F.S., was enacted which explicitly protects citizens' safety over property on the grounds that some vessel owners would have no safe place to go or would try to "ride out" a storm on board their vessel, a potentially deadly tactic.

327.59 Marina evacuations:

(1) *After June 1, 1994, marinas may not adopt, maintain, or enforce policies pertaining to evacuation of vessels which require vessels to be removed from marinas following the issuance of a hurricane watch or warning, in order to ensure that protecting the lives and safety of vessel owners is placed before interests of protecting property.*

(2) *Nothing in this section may be construed to restrict the ability of an owner of a vessel or the owner's authorized representative to remove a vessel voluntarily from a marina at any time or to restrict a marina owner from dictating the kind of cleats, ropes, fenders, and other measures that must be used on vessels as a condition of use of a marina.*

History.—s. 22, ch. 93-211; s. 11, ch. 95-146; s. 464, ch. 95-148; s. 2, ch. 95-150.

As noted, this statutory provision prohibits marina owners from requiring the removal of a vessel from the marina following the issuance of a hurricane watch or warning. The marina owner may, however, legally

⁷ Hurricane Manual for Marine Interests, Miami-Dade County Office of Emergency Management

⁸<http://www.cnn.com/2005/TECH/science/07/31/hurricanes.globalwrm.ap/index.html>

⁹http://www.bloomberg.com/apps/news?pid=specialreport_index2&sid=alwAacP44mek&refer=news

¹⁰http://www.bloomberg.com/apps/news?pid=10000086&sid=agXECPo1rG3k&refer=latin_america

¹¹ http://www.marinamanagement.com/articles/tk-12_04.html

¹² March 21, 2005, Senate Staff Analysis, CS/SB 2156

¹³ BoatU.S. Magazine, July 2005, p.20

dictate the type of cleats, ropes, fenders, and other measures that must be used on vessels as a condition of leasing space in the marina. When proponents of the legislation voiced a "life over property" campaign for its passage, it is unclear whether there was much discussion regarding the levels of damage and potential threats from loosed vessels.

During the 2005 regular session, the Florida Legislature considered proposed legislation (HB 1121 & SB 2156), which in relevant part, allowed marina operators, upon the issuance of a tropical storm or hurricane watch, to take efforts to: 1) secure vessels to prevent damage to the vessel, the marina, or the environment, 2) charge reasonable fees for securing vessels, and 3) hold the marina harmless for such actions. The proposed legislation would have also permitted the marina owners to insert language in lease contracts allowing the removal of a vessel from its slip to protect marina property. The legislation never advanced out of the House or Senate committees.

Florida Law Challenged

In 1995, section 327.59, F.S., was challenged by a marina owner in court and the case was dismissed. A subsequent appeal of the case upheld the lower court's dismissal (*Burklow & Associates v. Belcher*, 719 So.2d 31(1stDCA, 1998)). In that case, the marina owner sued the owners of sixteen vessels stored at the marina for breach of contract and negligence, seeking to recover damages allegedly caused by the vessel owners' failure to move their vessels from the marina before a hurricane had moved ashore. The Circuit Court dismissed the complaint and the marina owner appealed. The District Court of Appeal upheld the dismissal and found the following:

- The marina owner's complaint was within admiralty jurisdiction and that federal maritime law applied;
- Federal maritime law did not preempt section 327.59, F.S., providing that marinas may not adopt, maintain, or enforce evacuation policies requiring vessels to be removed from marinas following the issuance of a hurricane watch or warning; and
- Vessel owners had no duty to remove their vessels upon the request of the marina owner in the period prior to the issuance of a hurricane watch or warning.

The District Court of Appeal further stated that an owner of a vessel which is lawfully docked at a marina, under a valid slip lease agreement that does not require the removal of a vessel in the event of a hurricane threat, does not owe a duty to the marina owner to remove his or her vessel upon the request of the marina owner during the period prior to the issuance of any hurricane watch or warning. The court stated that requiring such a duty was not logical given the insufficient probability, at any time prior to the issuance of an official hurricane

watch or warning, of a hurricane causing a vessel owner's vessel to damage a marina. The court further stated that vessel owners whose vessels were stored at a marina did owe a duty to the marina owner to exercise reasonable care for the protection of the marina property, but that duty did not include any obligation to remove their vessel upon the request of the marina owner.

The court left unaddressed the question of whether a so-called "hurricane clause" in slip lease agreements, requiring a vessel owner to remove the vessel from a marina upon the threat of a hurricane, would be void as against the public policy stated in section 327.59, F.S.

Other States

During this study, staff spoke with representatives of the marina/vessel industry and officials from other states (including Georgia, Alabama, Mississippi, Texas, and South Carolina) to inquire if they had similar statutory language to section 327.59, F.S. Representatives of these states reported that no statutory provision was in place in any state to limit the marina's ability to remove vessels upon an impending hurricane, and the responsibility for the removal of a vessel from a marina prior to a storm was based on the contractual slip rental agreement utilized by each marina.

Storm Preparedness Perspectives

Marina Owner: When a hurricane is approaching, the most advantageous option is to get the vessel out of the water. Generally vessels stored on land fare better during a storm. Even if a vessel stored ashore was blown over, the damage is usually significantly less than the damage to vessels that are bashed against a dock or seawall for several hours and then sink.¹⁴ Sunken vessels may become abandoned derelict vessels which, in turn, pose significant health, safety, and environmental hazards and are difficult and expensive to remove.

Insurance companies offer only limited coverage for sections of marinas which extend over the water, and what is offered is so expensive that many marina owners cannot afford such coverage. As a result, marina owners are left to self-insure. According to estimates by marina representatives, approximately 75 to 80 percent of Florida marinas do not have insurance coverage which extends over the water areas of the marina facility. If the marina's dock/slip area is damaged or destroyed by a storm event, the marina owner must pay for repairs or replacement out of pocket. Some marina representatives argue that the lack of affordable insurance coverage and the inability to repair or replace docks and slips may be feeding the growing trend of independent marina owners selling their facilities to condominium developers.¹⁵

¹⁴ Seaworthy, Vol. 23 No.2, April 2005, p. 9

¹⁵ An additional issue confronting marina owners in replacing dock or slip areas are costs and time associated with leasing and permitting

Some marina owners alleged vessel owners may over-insure their vessels and purposefully leave their vessel in the water during the storm in hopes of collecting from their insurance company.

Vessel Owner: There are a variety of reasons why a vessel owner may choose to leave a vessel in the water at a marina; however, the following justifications reoccurred during conversations with vessel owners: 1) Vessel owners object to empowering marina owners with the authority to require the evacuation of vessels in advance of a pending storm, arguing that the safety of persons ought to take precedence over the protection of property; 2) Vessel owners argue that some vessel owners would have no safe place to go should a storm approach the marina location, nor are there sufficient safe anchorages, havens, or "hurricane holes" to accommodate the large number of vessels that would need to seek shelter and safety from the arrival of a hurricane; and 3) Vessel owners report that there is a limited window of time in which many vessels may be moved as draw bridges are locked down to facilitate land evacuation and roads become backlogged with hurricane evacuation traffic. According to BoatU.S., the U.S. Coast Guard is also concerned about great numbers of vessels creating navigation obstructions.¹⁶

While the vessel owner might agree that during a storm event the best place for the vessel is out of the water, due to time limitations, the expense, the number of vessels located at a marina, manpower constraints, and limited haul-out equipment, some marinas are not equipped to remove vessels within the evacuation window of time. Therefore, the vessel owner has nowhere to go and must batten down the hatches and secure the vessel with ropes tied to dock pilings hoping for the best as the vessel and marina facility face the fury of the storm.

Storm Preparedness Plan

In spite of the apparent conflicts of interest, the affected marina owners and vessel owners are encouraged to continue to work together to enhance the overall safety of life, vessels, and marina structures by developing and implementing a marina storm preparedness plan. Having a negotiated storm preparedness plan ready and working out the details ahead of time, are key components to aid in weathering a storm as safely as possible. For marina owners and vessel owners in particular, there are many things to take into consideration when planning for a hurricane.

For instance, recently in Palm Beach County, a hurricane conference was held among the marina industry and governmental entities to discuss developing a comprehensive preparedness plan that could be used or adapted elsewhere. It was reported that some 70

vessel issues were identified that need attention. The major concerns included:

- Lack of enough protected waters for boat evacuation
- Lack of enough upland storage land for vessels removed from slips
- Lack of education of vessel owners on proper vessel preparation
- Too few marinas with hurricane plans
- Too few municipalities with hurricane plans for the marine community

Recommendations discussed at the hurricane conference included the following:

- Utilize state or local parks as boat storage yards. When a hurricane is imminent, the parks are going to be closed and not likely to reopen until conditions are cleaned up, so park usage by the public should not be impacted
- Construct heavy-duty mooring cables along the Intercoastal Waterway that could be raised for vessels to tie on to during a hurricane but remain submerged when not in use
- Construct a hurricane hole as an integral part of a new marina development.
- Promote the development of a "hurricane club" which guarantees either wet or dry storage for all vessels prior to the hurricane¹⁷

Summary

As noted in the study, forecasters expect increased storm activity to continue for another 20 years or more. It appears that common ground exists between the marina owners and the vessel owners in having a storm preparedness plan in place at each marina. Working out the details ahead of time are key components to aid in weathering a storm safely. With regards to current Florida law, it remains to be determined if agreement can be reached by marina owners and vessel owners.

Policy Options

During the course of the study, several suggestions were made by various individuals in the marina/vessel industry regarding changes to current Florida law. These include the following:

- Do nothing, maintain status quo.
- Repeal section 327.59, F.S. By repealing this statute, Florida would be like other states which do not place vessel removal restrictions on marina owners due to weather conditions. The removal of such vessels could be based on a contractual agreement entered into by the

regulations with environmental authorities, but this issue lies beyond the scope of this report.

¹⁶ September 15, 2005 BoatU.S. response memo

¹⁷ BoatU.S. Magazine, Volume X, July 2005, p. 20-22

vessel owner and the marina owner at each marina facility.

- Pursue statutory revision to section 327.59, F.S., to allow a marina owner the ability to take actions to further secure any vessel within the marina to minimize damage to the vessel, the marina property, and the environment when a hurricane watch or hurricane warning is issued. The marina owner may charge reasonable fees for the securing of a vessel and will not be held

liable for any damage incurred to a vessel from such storms and is held harmless as a result of such actions.

- Encourage vessel owners and marina owners to develop a specific hurricane plan with specific actions to take place upon the issuance of a hurricane warning or watch.

TABLE A**U.S. Mainland Hurricane Strikes by State, 1851-2004****THE DEADLIEST, COSTLIEST, AND MOST INTENSE
UNITED STATES HURRICANES FROM 1851 TO 2004**

Area	Category Number					All (1-5)	Major (3-5)
	1	2	3	4	5		
U.S. (Texas to Maine)	109	72	71	18	3	273	92
Texas	23	17	12	7	0	59	19
(North)	12	6	3	4	0	25	7
(Central)	7	5	2	2	0	16	4
(South)	9	5	7	1	0	22	8
Louisiana	17	14	13	4	1	49	18
Mississippi	2	5	7	0	1	15	8
Alabama	11	5	6	0	0	22	6
Florida	43	32	27	6	2	110	35
(Northwest)	27	16	12	0	0	55	12
(Northeast)	13	8	1	0	0	22	1
(Southwest)	16	8	7	4	1	36	12
(Southeast)	13	13	11	3	1	41	15
Georgia	12	5	2	1	0	20	3
South Carolina	19	6	4	2	0	31	6
North Carolina	21	13	11	1	0	46	12
Virginia	9	2	1	0	0	12	1
Maryland	1	1	0	0	0	2	0
Delaware	2	0	0	0	0	2	0
New Jersey	2	0	0	0	0	2	0
Pennsylvania	1	0	0	0	0	1	0
New York	6	1	5	0	0	12	5
Connecticut	4	3	3	0	0	10	3
Rhode Island	3	2	4	0	0	9	4
Massachusetts	5	2	3	0	0	10	3
New Hampshire	1	1	0	0	0	2	0
Maine	5	1	0	0	0	6	0